

We Claim:

1. A method for displaying transactional information regarding the buying and selling of items in a system where orders comprise a bid type or an offer type, and an order is generated for a quantity of items at a specific value, the method comprising:  
2. displaying at least one bid icon, corresponding to a bid for a quantity of items, at a location along a first axis of values corresponding to the value of the bid; and  
3. displaying at least one offer icon, corresponding to an offer type order for a quantity of items, at a location along the first axis of values corresponding to the value of the offer.

2. The method of claim 1 further comprising:

3. providing an order token whose size is adjustable by the user to reflect the quantity of the order.

3. The method of claim 2 wherein providing an order icon further comprises:

2. providing an order icon which can be moved to a location corresponding to the value of the order.

4. The method of claim 1 further comprising:

2. receiving a request for an order responsive to a user action specifying a quantity of items and value for the order; and  
3. displaying further comprises displaying a requested order icon corresponding to the specified quantity and value information.

1 5. The method of claim 4 wherein slots are created within which icons are displayed,  
2 the received request for an order is of the bid type, and displaying further comprises  
3 displaying a bid icon corresponding to the specified quantity and value information, the  
4 method further comprising:

5 placing the requested bid icon into a slot adjacent a slot containing a bid  
6 icon having a value closest to and greater than the value of the bid.

1 6. The method of claim 5 further comprising:

2 determining whether the slot currently contains a bid icon; and  
3 responsive to determining that the slot contains a bid icon, displacing the  
4 bid icon currently within the slot.

7. The method of claim 5 further comprising:

2 determining whether the slot contains a currently existing bid icon;

3 responsive to determining the slot contains a currently existing bid icon,

4 determining the value of the currently existing bid icon;

5 responsive to determining that the currently existing bid icon has a value

6 less than the requested bid icon, displacing the currently existing

7 bid icon from the slot; and

8 responsive to determining that the currently existing bid icon has a value

9 equal to the value of the requested bid icon, placing the requested

0 bid icon into the slot adjacent the currently existing bid icon within

1 the slot, wherein the order of the bid icons in the slot indicates the

2 order that the bids would be matched against offers.

1 8. The method of claim 7 in a system in which the first axis is displayed in a vertical  
2 direction and the slots are positioned vertically, and wherein placing the requested bid  
3 icon further comprises placing the requested bid icon vertically adjacent the currently  
4 existing bid icon.

1 9. The method of claim 4 wherein slots are created within which icons are displayed,  
2 and the received request for an order is of the offer type, displaying further comprises  
3 displaying an offer icon corresponding to the specified quantity and value information  
4 further comprising:

5 placing the requested offer icon into a slot adjacent a slot containing an  
6 offer icon having a value closest to and less than the value of the  
7 offer.

1 10. The method of claim 4 in a system in which order icons placed by a user are  
2 displayed to the user with a first visual characteristic, and order icons placed by other  
3 users are displayed with a second visual characteristic to the user, and wherein displaying  
4 an order icon further comprises:

5 displaying the requested order icon with the first visual characteristic to  
6 the user who requested the order; and  
7 displaying the requested order icon with the second visual characteristic to  
8 other users.

1 11. The method of claim 1 further comprising:

2 displaying an order icon having an edge which is angled toward the axis of  
3 values.

1 12. The method of claim 1 further comprising:

2 receiving a new order for a quantity of items for a specified value;  
3 generating an order icon whose size corresponds to the quantity of items

4 bid for; and

5 placing the order icon at a location along the axis of values corresponding  
6 to the specified value of the order.

1 13. The method of claim 12 wherein the order is a bid type further comprising:

2 determining whether a currently displayed offer icon is located at the  
3 specified value or less than the specified value;

4 responsive to determining that a currently displayed offer icon is located at  
5 the specified value, determining a quantity specified by the  
6 currently displayed offer icon; and

7 responsive to the quantity of the currently displayed offer icon being equal  
8 to the quantity of the bid, removing the currently displayed offer  
9 icon.

1 14. The method of claim 13 further comprising:

2 responsive to the quantity of the currently displayed offer icon being less  
3 than the quantity of the bid, displaying a bid icon whose size

4 corresponds to the difference between the quantity of the bid and  
5 the quantity of the offer.

1 15. The method of claim 13 further comprising:

2 responsive to the quantity of the offer being greater than the quantity of  
3 the bid, modifying the display of the offer icon to a size that  
4 corresponds to the difference between the quantity of the bid and  
5 the quantity of the offer.

1 16. The method of claim 1 further comprising:

2 receiving a new order for a quantity of items for a specified value;  
3 generating an order icon whose size corresponds to the quantity of items  
4 for which the offer is made; and  
5 placing the order icon at a location with respect to the axis of values  
6 corresponding to the specified value of the offer.

1 17. The method of claim 16 further comprising:

2 determining whether a currently displayed order icon of the same type as  
3 the new order is located at the specified value; and  
4 responsive to determining that a currently displayed order icon of the same  
5 type as the new order is located at the specified value, placing the  
6 generated order icon adjacent the currently displayed order icon  
7 where the displayed order of the offer icons with the same value  
8 indicate the order that the offers would be matched against bids.

1 18. The method of claim 1 further comprising the step of:

2 generating a second axis, perpendicular to the first axis, representing time;

3 generating a third axis, perpendicular to the second axis, representing

4 value; and

5 displaying a historical chart representing values of the item responsive to

6 time and value with respect to the second and third axes.

1 19. The method of claim 18 further comprising:

2 updating the historical chart responsive to the passage of time.

1 20. The method of claim 1 further comprising the step of:

2 generating a second axis, perpendicular to the first axis, representing time;

3 generating a third axis, perpendicular to the second axis, representing

4 value; and

5 displaying a historical chart with respect to the second and third axes

6 representing average values of a set of items responsive to time and

7 value.

1 21. The method of claim 1 wherein bid and offer icons representing bids and offers

2 for a first item are displayed, further comprising the step of:

3 generating a second axis, perpendicular to the first axis, representing time;

4 generating a third axis, perpendicular to the second axis, representing

5 value; and

6 displaying a historical chart representing values of a second item  
7 responsive to time and value with respect to the second and third  
8 axes.

1 22. The method of claim 1 further comprising:  
2 computing a value for an item responsive to a value quantifying metric;  
3 and  
4 displaying a marker at a location with respect to the first axis  
5 corresponding to the computed value for the item.

1 23. The method of claim 22 wherein the value quantifying metric comprises a  
2 combination of economic factors, further comprising:  
3 updating the computed value responsive to a change in at least one of the  
4 economic factors; and  
5 displaying the marker at a location with respect to the first axis  
6 corresponding to the updated value.

1 24. The method of claim 1 wherein displaying at least one bid icon further comprises:  
2 displaying at least one bid icon at a location with respect to a second axis  
3 of quantities at a location corresponding to the quantity of the bid;  
4 and wherein the step of displaying at least one bid icon further  
5 comprises:

6 displaying at least one offer icon at a location with respect to a second axis  
7 of quantities at a location corresponding to the quantity of the  
8 offer.

1 25. The method of claim 24 further comprising:

2 receiving a user action to generate a new bid, wherein said user action  
3 specifies quantity and value information; and  
4 displaying a bid icon at a location with respect to the first and second axes  
5 corresponding to the specified quantity and value information.

1 26. The method of claim 25 further comprising:

2 determining whether an offer is outstanding at a value less than the value  
3 of the new bid;  
4 responsive to an offer being outstanding at a value less than the value of  
5 the new bid, determining a difference in quantity between the new  
6 bid and the outstanding offer; and  
7 responsive to the new bid having a greater quantity than the outstanding  
8 offer, displaying a bid icon with respect to the first and second axes  
9 at a location corresponding to the difference in quantities.

1 27. The method of claim 24 further comprising:

2 receiving a command to generate a new offer, wherein said command  
3 specifies quantity and value information; and

4 displaying an offer icon at a location corresponding to the specified  
5 quantity and value information.

*DW 052*  
28. A method for placing an order for an item at a desired value for a desired quantity  
in a system in which remote terminals display all outstanding orders for the item wherein  
3 orders comprise bids and offers, and a transaction server receives orders transmitted by  
4 each remote terminal and communicates the received orders to all remote terminals,  
5 comprising:  
6 displaying at least one order token;  
7 receiving a selection for an order token; and  
8 moving the order token to a user specified location with respect to a value  
9 axis and a quantity axis which corresponds to the desired value and  
10 quantity for the order.

1 29. The method of claim 28 further comprising a method of purchasing an item at a  
2 desired value for a desired quantity, wherein said method for purchasing an item  
3 comprises:  
4 determining whether a displayed offer icon exists at a location  
5 corresponding to the desired quantity and value; and  
6 responsive to a displayed offer icon existing at a location corresponding to  
7 the desired quantity and value, selecting a bid icon and moving the  
8 bid icon to the location occupied by the displayed offer icon.

30. The method of claim 28 further comprising a method of selling an item at a  
desired value for a desired quantity, wherein said method for selling an item comprises:  
3      determining whether a displayed bid icon exists at a location  
4      corresponding to the desired quantity and value; and  
5      responsive to a displayed bid icon existing at a location corresponding to  
6      the desired quantity and value, selecting an offer icon and moving  
7      the offer icon to the location occupied by the displayed bid icon.

1      31. The method of claim 28 further comprising  
2      *SW D7* adjusting a size of the order token until the size of the offer icon represents  
3      the desired quantity of the order; and  
4      moving the order token to a location along a value axis which corresponds  
5      to the desired value for the order.

1      32. A method of displaying trading activity of a plurality of traders comprising:  
2      *MC* displaying a trading pit;  
3      determining for each trader, an activity level; and  
4      displaying for each trader a token representing the trader at a location in  
5      the trading pit which corresponds to the activity level of the trader.

1      33. The method of claim 32 wherein determining an activity level comprises:  
2      *SW* determining a volume of open orders of a trader; and  
3      computing an activity level responsive to the volume of open orders for  
4      the trader.

*Sub P*  
34. The method of claim 32 wherein the trader having a highest level of activity has a  
1 token displayed near the center of the trading pit.

*Sub A*  
35. A computer-readable medium, for an electronic trading system in which items are  
2 bought and sold responsive to orders submitted by traders, each order specifying a value  
3 and quantity for the order, said computer-readable medium containing a program  
4 containing instructions to cause a processor to:

5 display a first axis representing values of an item;

6 display at least one bid icon which corresponds to a quantity of items in a  
7 bid for the item and a value of the bid at a location with respect to  
8 the first axis; and

9 display at least one offer icon which corresponds to a quantity of items in  
10 an offer for the item and a value of the offer at a location with  
11 respect to the first axis.

*Sub P*  
36. The computer-readable medium of claim 35 further causing the processor to:

2 display a historical chart representing historical economic data value for a  
3 set of items.

*Sub A*  
37. The computer-readable medium of claim 35 wherein the at least one bid icon is  
1 displayed having a size corresponding to a quantity of items specified by the bid and the  
2 at least one offer icon is displayed having a size corresponding to a quantity items  
3 specified by the offer.

*Dab 1* 38. The computer-readable medium of claim 35 further causing the processor to:  
3 display a second axis representing quantities of an item; and the at least  
4 one bid icon is displayed at a location which corresponds to the  
5 quantity of the bid and the value of the bid, and the at least one  
6 offer icon is displayed at a location which corresponds to the  
quantity of the offer and the value of the offer.

*Dab 2* 39. The computer-readable medium of claim 35 further causing the processor to:

2 display a pit panel icon, wherein said pit panel icon has concentric rings  
3 and/or shapes; and  
4 display trader icons, wherein said trader icons represent traders currently  
5 trading an item.

*Dab 3* 1 40. The computer-readable medium of claim 39 further causing the processor to  
2 display trader icons at locations on the pit panel icon responsive to an activity level of the  
3 trader represented by the icon.

*Dab 4* 1 41. A method for conducting the buying and selling of items comprising:  
2 receiving at least one bid from a first remote terminal and at least one offer  
3 for at least one item from a second remote terminal;  
4 matching a bid for an item with an offer for an item, responsive to the bid  
5 corresponding to the offer; and  
6 communicating outstanding bids and outstanding offers to a plurality of  
7 remote terminals for display on the remote terminals, including the

8

~~Subj A8~~ bid received from the first remote terminal and the offer received from the second remote terminal.

1

42. The method of claim 41, further comprising:

2

~~Subj D~~ displaying the communicated outstanding bids and outstanding offers.

3

43. A system having a plurality of client terminals for generating bids and offers on items, and displaying received information on outstanding bids, outstanding offers, and items upon which bids and offers are made, wherein the system is for conducting the

4

buying and selling of items, the system comprising:

5

a transaction server, coupled to the plurality of client terminals, for

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receiving bids and offers for the items from the client terminals,

7

matching offers to corresponding bids, and transmitting

8

information on items, outstanding received bids, and outstanding

9

received offers to the plurality of client terminals.

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44. The system of claim 43 further comprising:

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~~Subj D7~~ a database, coupled to the transaction server, for storing information on

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items, received bids, and received offers.

4

45. A method of providing an interface to an electronic trading system in which items

2

are bought and sold responsive to orders placed by users of the electronic trading system,

3

each order specifying a value and quantity for the order, said method comprising:

4

displaying a selection of views for a user;

5 *5 6 7 8 9 10*  
6 receiving an input selecting a first or second view for display;  
7 responsive to receiving an input selecting a first view, displaying the first  
8 view having an axis of values, wherein the first view displays an  
9 order icon for each outstanding order for an item, and the order  
10 icons are displayed at locations with respect to the value axis  
11 corresponding to the value of the order; and  
12 responsive to receiving an input selecting a second view, displaying the  
13 second view having an axis of values and an axis of quantities,  
14 wherein the second view displays an order icon for each  
15 outstanding order for an item, and the order icons are displayed at  
16 locations with respect to the value axis and the quantity axis  
17 corresponding to the value and quantity of the order.

1 *1 2 3 4 5 6 7*  
2 46. The method of claim 45 in a system having at least three views, and receiving  
3 further comprises receiving an input selecting a first, second, or third view for display,  
4 said method further comprising:  
5 responsive to receiving an input selecting a third view, displaying the third  
6 view displaying a pit panel and trader icons representing traders,  
7 wherein the trader icons are placed on the pit panel responsive to  
8 an activity level of the trader represented by the trader icons.

1 *1 2 3 4 5 6 7*  
2 47. A user interface for an electronic trading system in which offers and bids are  
3 generated, each offer and bid having a value and quantity, the user interface comprising:

3 an axis of values;  
4 an axis of quantities;  
5 at least one offer icon representing an outstanding offer at a location  
6 corresponding to the value and quantity of the offer; and  
7 at least one bid icon representing an outstanding bid at a location  
8 corresponding to the value and quantity of the bid.

48. The user interface of claim 47 wherein the axis of values is a vertical axis, and the user interface further comprises:

a historical chart of contextual data, wherein said historical chart is generated responsive to a horizontal axis of time and the vertical axis of values.

49. A user interface for an electronic trading system in which offers and bids are generated, each offer and bid having a value and quantity, the user interface comprises:

- an axis of values;
- at least one offer icon representing an outstanding offer at a location corresponding to the value and quantity of the offer and having a size corresponding to the quantity of the offer; and
- at least one bid icon representing an outstanding bid at a location corresponding to the value and quantity of the bid and having a size corresponding to the quantity of the bid.

1 50. The user interface of claim 49 wherein the axis of values is a vertical axis, and the  
2 user interface further comprises:  
3

4 a historical chart of contextual data, wherein said trend line is generated  
5 responsive to a horizontal axis of time and the vertical axis of  
values.

1 51. The user interface of claim 49 in which order icons placed by a user are displayed  
2 with a first visual characteristic to the user, and order icons placed by other users are  
3 displayed with a second visual characteristic to the user.

1 52. The user interface of claim 49 in which the bid icons are displayed having a top  
2 edge which is angled toward the axis of values and the offer icons are displayed having a  
3 bottom edge which is angled toward the axis of values.

1 53. A user interface for an electronic trading system in which traders generate offers  
2 and bids for items, the user interface comprising:  
3 a pit panel icon representing a trading pit for trading the item, including a  
4 plurality of concentric areas; and  
5 trader icons, wherein each trader icon represents a trader currently trading  
6 an item in the trading pit.

1 54. The user interface of claim 53 wherein the trader icons are placed within the pit  
2 panel icon responsive to the offers and bids generated by the traders.

55. A method for displaying transactional information in an electronic trading system  
in which offers and bids are generated, each offer and bid having a value and quantity, the  
3 method comprising:  
4       displaying an axis of values;  
5       displaying an axis of quantities;  
6       displaying at least one offer icon representing an outstanding offer at a  
7                   location corresponding to the value and quantity of the offer; and  
8       displaying at least one bid icon representing an outstanding bid at a  
9                   location corresponding to the value and quantity of the bid.

1 56. The method of claim 55 wherein the axis of values is a vertical axis, and the  
2 method further comprises:  
3       displaying a historical chart of contextual data, wherein said trend line is  
4                   generated responsive to a horizontal axis of time and the vertical  
5                   axis of values.

1 57. A method for displaying transactional information for an electronic trading  
2 system in which offers and bids are generated, each offer and bid having a value and  
3 quantity, the method comprising:  
4       displaying an axis of values;  
5       displaying at least one offer icon representing an outstanding offer at a  
6                   location corresponding to the value and quantity of the offer and  
7                   having a size corresponding to the quantity of the offer; and

8  
9  
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displaying at least one bid icon representing an outstanding bid at a location corresponding to the value and quantity of the bid and having a size corresponding to the quantity of the bid.

1 58. The method of claim 57 wherein the axis of values is a vertical axis, and the  
2 method further comprises:  
3 displaying a historical chart of contextual data, wherein said trend line is  
4 generated responsive to a horizontal axis of time and the vertical  
5 axis of values.

Abd  
EJ